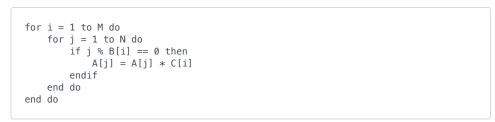# Sherlock and Queries

Problem    Submissions    Leaderboard    Discussions    Editorial

Change language : English

Watson gives to Sherlock an array: $A_1, A_2, \cdots, A_N$. He also gives to Sherlock two other arrays: $B_1, B_2, \cdots, B_M$ and $C_1, C_2, \cdots, C_M$.
Then Watson asks Sherlock to perform the following program:

```
for i = 1 to M do
    for j = 1 to N do
        if j % B[i] == 0 then
            A[j] = A[j] * C[i]
        endif
    end do
end do
```

Can you help Sherlock and tell him the resulting array $A$? You should print all the array elements modulo $(10^9 + 7)$.

### Input Format
The first line contains two integer numbers $N$ and $M$. The next line contains $N$ integers, the elements of array $A$. The next two lines contains $M$ integers each, the elements of array $B$ and $C$.

### Output Format
Print $N$ integers, the elements of array $A$ after performing the program modulo $(10^9 + 7)$.

### Constraints
$1 \le N, M \le 10^5$
$1 \le B[i] \le N$
$1 \le A[i], C[i] \le 10^5$

### Sample Input

```
4 3
1 2 3 4
1 2 3
13 29 71
```

### Sample Output

```
13 754 2769 1508
```

Suggest Edits

**Current Buffer** (saved locally, editable)

PHP

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